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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,575	08/21/2003	Winnie C. Wu	MSFT-2733/305587.01	9794

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EXAMINER
SAEED, USMAAN

ART UNIT	PAPER NUMBER
2166	

NOTIFICATION DATE	DELIVERY MODE
12/01/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>02 September 2010</u>.

2a)☐ This action is **FINAL**.　　　　2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>17-36</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>17-36</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All　b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date <u>06/07/2010 and 12/09/2009</u>.

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   Receipt of Applicant's Amendment, filed 09/02/2010 is acknowledged.

Claims 17 and 26-27 have been amended and claims 17-36 are pending in this

office action.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 17-27, and 29-34 are rejected under 35 U.S.C 103(a) as being

unpatentable over Kumar et al. (U.S. Patent No. 6,343,287) in view of Pham et al. (U.S.

PG Pub No. 2004/0078568).

As to claim 17, Kumar et al. discloses a method for querying and returning

instances of items comprising:

receiving from an application that operates in user space of an operating system,

a request identifying an item (See Abstract, Figure 2, column 1, lines 52-55, column 3,

lines 41-50, column 11, lines 28-38), said item having a scope that includes at least one

additional item (See Abstract, figure 5 and column 16, lines 44-47);

generating, by the database management program an object that encapsulates an instance of the identified item (See column 16, lines 30-40 and column 7, lines 11-18), the encapsulation of the identified item providing a method for querying the database management program (See Abstract, column 14, lines 58-65, and see column 16, lines 8-30);

executing, by the database management program a query on said object for at least one additional item, the query utilizing the scope of the identified item as a parameter (See column 16, lines 8-30, lines 44-47); and

returning to the application at least one instance of the at least one additional item that matches the query (See Abstract, column 5, lines 24-32, column 17, lines 5-10 and Figure 9).

Kumar et al. teaches the elements of claim 17 as noted above but does not explicitly teaches wherein the operating system includes a database management program that encapsulates a file system and the operating system is configured to store, data in the file system as file streams, and generate, items associated with the file streams in the database management program.

However, Pham et al. teaches wherein the operating system includes a database management program that encapsulates a file system and the operating system is configured to store, data in the file system as file streams, and generate, items associated with the file streams in the database management program (See Paragraphs 0032, 0036-0037 and 0049, and figures 1-2).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Kumar et al. with Pham et al. to provide an efficient and effective mechanism for reliably securing persistent data in a manner eminently subject to cooperative management and control within a security domain by providing a security file system layer interposed between the platform operating system kernel and file system.

As to claim 18, Kumar et al. discloses comprising:

interfacing with the database management program, each item associated with at least one schema that defines an item's type (See column 18, lines 19-30); and

generating at least one data class for each item stored in said database, wherein the fields of the item' s type map to the fields of the at least one data class (See column 19, lines 1-21).

As to claim 19, Kumar et al. discloses wherein the at least one schema that defines an item's type is received from a third party (See column 17, lines 24-29, and see column 18, 19-30).

As to claim 20, Kumar et al. discloses wherein generating an instance of said identified item further comprises:

generating an instance of the identified item from at least one data class, wherein

the generated instance includes methods specific to the data class (See Abstract, and

see column 23, lines 1-14).

As to claim 21, <u>Kumar et al.</u> discloses wherein said object utilizes a connection to

the database management program to query the database management program and

modify the items stored in said database management program (See column 20, lines

40-52).

As to claim 22, <u>Kumar et al.</u> discloses wherein the query further specifies at *least*

one of an item's property, an item's extensions, and an item's relationships as a query

parameter (See column 21, lines 35-54).

As to claim 23, <u>Kumar et al.</u> discloses further comprising:

receiving an indication that said application has modified the *at least one*

instance of the at least one additional item (See column 6, lines 14-20, and see column

24, lines 41-57).

As to claim 24, <u>Kumar et al.</u> discloses wherein the object utilizes a method for

saving changes to save the modifications to the at least one item stored in said

database management program integrated with the file system (See column 20, lines

40-41).

As to claim 25, Kumar et al. discloses wherein the scope of said identified item includes a plurality of items stored in a plurality of database management program integrated with a plurality of file systems (See column 16, lines 48-51).

As to claim 26, Kumar et al. does not explicitly discloses wherein the object establishes a connection with the plurality of database management program that encapsulate a plurality of file systems to query for the at least one additional item.

However, Pham teaches wherein the object establishes a connection with the plurality of database management program that encapsulate a plurality of file systems to query for the at least one additional item (See Paragraphs 0032, 0036-0037 and 0049, and figures 1-2).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Kumar et al. with Pham et al. to provide an efficient and effective mechanism for reliably securing persistent data in a manner eminently subject to cooperative management and control within a security domain by providing a security file system layer interposed between the platform operating system kernel and file system.

As to claim 27, Kumar et al. discloses wherein the object establishes an individual connection with a specific database management program in the plurality of

database management program to save changes to a specific item stored in said specific database management program (See column 9, lines 22-25).

Kumar teaches elements of claim 27 as noted above but does not explicitly teaches a specific database management program that encapsulates a specific file system in the plurality of database management program integrated with a plurality of file systems.

However, Pham teaches a specific database management program that encapsulates a specific file system in the plurality of database management program integrated with a plurality of file systems (See Paragraphs 0032, 0036-0037 and 0049, and figures 1-2).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Kumar et al. with Pham et al. to provide an efficient and effective mechanism for reliably securing persistent data in a manner eminently subject to cooperative management and control within a security domain by providing a security file system layer interposed between the platform operating system kernel and file system.

As to claim 29, Kumar et al. discloses further comprising:

maintaining a cache of the at least one instance of the at least one additional item that matches the query, wherein subsequent queries are performed against the cache (See column 22, lines 40-52).

As to claim 30, <u>Kumar et al.</u> discloses further comprising:

receiving an indication that an application has modified the at least one instance of the at least one additional item (See column 13, lines 2-35, wherein "an indication" reads on "notification"); and

utilizing a method to save changes to the at least one instance of the at least one additional item in said cache (See column 22, lines 40-52, all changes are kept in the registry).

As to claim 31, <u>Kumar et al.</u> discloses wherein said identified item is a set of items that includes one of an entire set of items in the database management program, any subset of items in said database management program, and any individual item in said database management program (See column 16, lines 48-51).

As to claim 32, <u>Kumar et al.</u> discloses wherein the identified is an item of a type folder, the scope of the item of the type folder includes any items that are contained within the item of the type folder (See column 15, lines 31-44, wherein "type folder" reads on "profiles of the same kind stored in a list").

As to claim 33, <u>Kumar et al.</u> discloses wherein each item stored in said database management program includes a relationship to another item stored in said database management program, said relationship defined by a property in an item that is a source

of the relationship and a property in an item that is the target of the relationship (See

column 22, lines 1-14, wherein "profile" is dedicated to one specific data store type).

As to claim 34, <u>Kumar et al.</u> discloses wherein a query that includes an item's

relationships as a parameter returns an instance of any item that is the source a

relationship and an instance of any item that is the target of a relationship (See Figures

7A-7D, shows type of relationships within a class or among classes used to return

instance of any item).

3.   Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over <u>Kumar</u>

<u>et al.</u> (U.S. Patent No. 6,343,287 B1) in view of <u>Pham et al.</u> (U.S. PG Pub No.

2004/0078568) further in view of <u>Plutowski</u> (U.S. Patent No. 6,473,851).

As to claim 28, <u>Kumar et al. and Pham et al.</u> do not teach wherein the object

includes a conflict handler method that is configured to detect when multiple

applications modify instances of the same item and determine what modifications to

save by utilizing a policy.

However, <u>Plutowski</u> teaches wherein the object includes a conflict handler

method that is configured to detect when multiple applications modify instances of the

same item and determine what modifications to save by utilizing a policy (See column

20, lines 5-21, teaches database access, and see column 24, lines 35-44, teaches

conflict resolution detection).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Kumar et al. and Pham et al with Plutowski to include wherein the object includes a conflict handler method that is configured to detect when multiple applications modify instances of the same item and determine what modifications to save by utilizing a policy to assure efficient access and persistent data storage in the database (See Plutowski column 2, lines 35-39).

4.   Claims 35, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumar et al. (U.S. Patent No. 6,343,287 B1) in view of Pham et al. (U.S. PG Pub No. 2004/0078568) further in view of C. Liebig et al. A Publish/Subscribe CORBA Persistent State Service Prototype. Middleware 2000: IFIP/ACM International Conference on Distributed Systems Platforms, New York, NY, USA, April 2000. Proceedings (From here on in Liebig et al.).

As to claim 35, Kumar et al. discloses the claimed invention but does not explicitly teaches receiving a request from an application to track changes to one of an item, an item's extensions, and an item's relationships; registering, the database management program integrated with the file system, said application for a notification service that notifies said application when any changes to one of the item, the item's extensions, and the item's relationships are detected.

Liebig et al. teaches receiving a request from an application to track changes to
one of an item, an item's extensions, and an item's relationships (See page 233, lines 1-
3, and see page 242, section 4.1.3);

registering, the database management program integrated with the file system,
said application (See page 235, section 2.2, and page 237, lines 1-8, wherein
"registering" reads on "publish/subscribe" architecture) for a notification service that
notifies said application when any changes to one of the item, the item's extensions,
and the item's relationships are detected (See page 238, wherein various types of
"notification" are sent to the applications).

Therefore, it would have been obvious to a person of ordinary skill in the art at
the time the invention was made to modify the teachings of Kumar et al. and Pham et al.
with Liebig et al. to include receiving a request from an application to track changes to
one of an item, an item's extensions, and an item's relationships; registering, the
database management program integrated with the file system, said application for a
notification service that notifies said application when any changes to one of the item,
the item's extensions, and the item's relationships are detected because it provides a
way to efficiently propagate and manage updates in distributed heterogeneous network
(See Liebig et al. abstract).

As to claim 36, Kumar et al. as modified discloses wherein said notification
service notifies said application when any changes to items associated with the item,

the item's extensions, and the item's relationships are detected (See Liebig et al. page

238, wherein various types of "notification" are sent to the applications).

Response to Arguments

5.   Applicant's arguments have been considered but are moot in view of the new

ground(s) of rejection.

        In these arguments applicant relies on the amended claims and not the original

ones.

        See above rejections for response to the arguments.

Contact Information

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to USMAAN SAEED whose telephone number is

(571)272-4046. The examiner can normally be reached on M-F 8-5.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hosain Alam can be reached on (571)272-3978. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Usmaan Saeed
Patent Examiner
Art Unit: 2166
November 22, 2010

/Usmaan Saeed/
Examiner, Art Unit 2166